abcam

Product datasheet

Anti-Cytokeratin 20 antibody [Ks20.8] ab854

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Overview

Product name	Anti-Cytokeratin 20 antibody [Ks20.8]
Description	Mouse monoclonal [Ks20.8] to Cytokeratin 20
Host species	Mouse
Specificity	This antibody is highly specific to cytokeratin 20 and shows no cross-reaction with other intermediate filament proteins. It is essentially non-reactive in squamous cell carcinomas and adenocarcinomas of the breast, lung, and endometrium, non-mucinous tumors of the ovary and small cell carcinomas.
Tested applications	**Suitable for:** Flow Cyt, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Tissue, cells or virus corresponding to Cytokeratin 20. Electrophoretically purified Keratin K20 from Human intestinal mucosa.
Positive control	Colon carcinoma. IF/ICC: Jeg3 cell line.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.1% Sodium azide Constituents: PBS, Carrier protein Van Gogh Yellow Diluent
Purity	Tissue culture supernatant
Clonality	Monoclonal

Clone number	Ks20.8
Myeloma	unknown
Isotype	IgG2a
Light chain type	unknown

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab854 in the following tested applications.

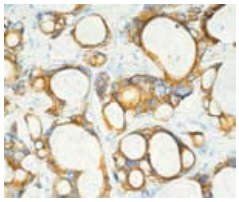
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		1/50. (Also see PMID: 20332776) **ab170191** - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.
IHC-P	★★★★☆ **(1)**	Use at an assay dependent concentration. This antibody may be diluted to a titer of 1:50-1:100 in an ABC method.We suggest an incubation period of 30-60 minutes at room temperature.
ICC/IF	★★★★★ **(1)**	1/200.

Target

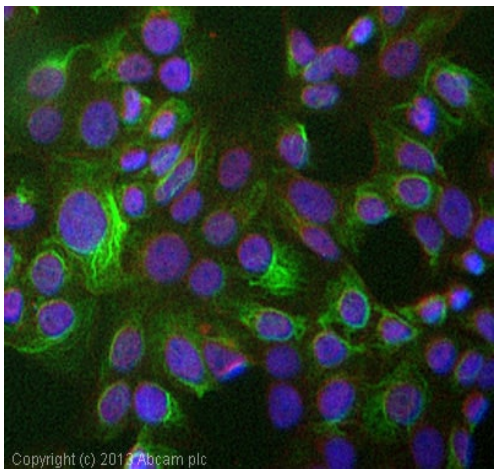
Function	Plays a significant role in maintaining keratin filament organization in intestinal epithelia. When phosphorylated, plays a role in the secretion of mucin in the small intestine.
Tissue specificity	Expressed predominantly in the intestinal epithelium. Expressed in luminal cells of colonic mucosa. Also expressed in the Merkel cells of keratinized oral mucosa; specifically at the tips of some rete ridges of the gingival mucosa, in the basal layer of the palatal mucosa and in the taste buds of lingual mucosa.
Sequence similarities	Belongs to the intermediate filament family.
Developmental stage	First detected at embryonic week 8 in individual 'converted' simple epithelial cells of the developing intestinal mucosa. In later fetal stages, synthesis extends over most goblet cells and a variable number of villus enterocytes. In the developing gastric and intestinal mucosa, expressed in all enterocytes and goblet cells as well as certain 'low-differentiated' columnar cells, whereas the neuroendocrine and Paneth cells are negative.
Post-translational modifications	Hyperphosphorylation at Ser-13 occurs during the early stages of apoptosis but becomes less prominent during the later stages. Phosphorylation at Ser-13 also increases in response to stress brought on by cell injury. Proteolytically cleaved by caspases during apoptosis. Cleavage occurs at Asp-228.
Cellular localization	Cytoplasm.

Images



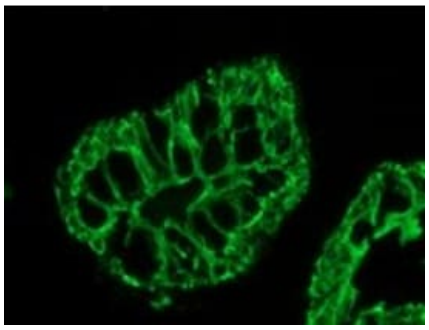
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 20 antibody [Ks20.8] (ab854)

ab854 staining cytokeratin in human colon cancer tissue section by Immunohistochemistry (Formalin/ PFA fixed paraffin embedded tissue sections).



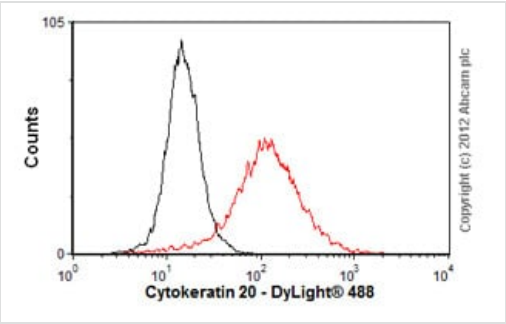
Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 20 antibody [Ks20.8] (ab854)

ICC/IF image of ab854 stained Jeg3 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab854, 1/200 dilution) overnight at +4°C. The secondary antibody (green) was **ab96879**, DyLight® 488 goat anti-mouse IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 20 antibody [Ks20.8] (ab854)

Immunofluorescent analysis of human colon epithelium, staining Cytokeratin 20 with ab854.



Flow Cytometry - Anti-Cytokeratin 20 antibody [Ks20.8] (ab854)

Overlay histogram showing LoVo cells stained with ab854 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab854, 1/50 dilution) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (**ab91361**, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

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